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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,994	10/13/2005	Mubarik Mahmood Chowdhry	278607US0PCT	5837
22850	7590	05/17/2007		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER BOYKIN, TERRESSA M	
			ART UNIT 1711	PAPER NUMBER
			NOTIFICATION DATE 05/17/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

Application No.

10/552,994

Applicant(s)

CHOWDHRY ET AL.

Examiner

Terressa M. Boykin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10-13-5.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-10 are rejected under 35 U.S.C. 102(a, b, or e) as being anticipated by DE 19840585 see abstract; or USP 6444785 see abstract; DE 38 34 734 see abstract.**

**DE 19840585 discloses** reduction of the residual monomer content of an aqueous polymer dispersion comprises addition of an oxidizing agent, a reducing agent and a multivalent metal ion.

A process to reduce the residual monomer content of an aqueous polymer dispersion comprises addition of an oxidizing agent, a reducing agent and a multivalent metal ion.

A process to reduce the residual monomer content of an aqueous polymer dispersion comprises treatment of the dispersion with an initiator system (I) comprising (A) 0.001-5 wt. % (w.r.t. total monomers used in the preparation of the polymer dispersion) of (A1) an oxidizing agent of formula (1) and/or (A2) a compound that liberates hydrogen peroxide in water and (B) 0.005-5 wt.% (w.r.t. total monomers used in the preparation of the polymer dispersion) of (B1) an alpha -hydroxycarbonyl compound of formula (2) and/or (B2) a compound that liberates an alpha -hydroxy carbonyl compound in water and (C) preferably catalytic quantities of a multivalent metal ion having more than one oxidation state.



$R^1$  = H, 1-8C alkyl or 6-12C aryl;

$R^2, R^3$  = H or a 1-12C alkyl, optionally substituted and/or containing olefinic unsaturation,  $R^2$  and  $R^3$  may optionally form a ring structure through methylene groups

The process is useful to reduce the residual monomer content of aqueous

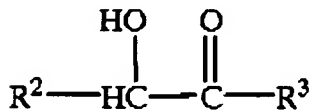
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polymer dispersions.

**USP 6444785** discloses a process is provided for preparing W/O emulsions having crosslinked water-swollen polymers dispersed therein, by after treatment with a redox initiator system to reduce the residual monomer content.

A process for reducing the residual monomer content in a W/O emulsion comprising crosslinked water-swollen addition polymers dispersed therein, said process comprising after treating said W/O emulsion with a redox initiator system comprising, a) from 0.001 to 5% by weight, based on the total monomer amount used to prepare the polymer, a1) of an oxidizing agent:

$R^1$  OOH, where  $R^1$  is hydrogen, a C1 - to C8 -alkyl or C6 - to C12 aryl group, and/or a2) of a compound which in aqueous medium releases hydrogen peroxide, and b) from 0.005 to 5% by weight, based on the total monomer amount used to prepare the polymer of a reducing agent, b1) which is an .alpha.-hydroxy carbonyl compound:



where, independently of each other,  $R^2$  is hydrogen or a C1 -C12 -alkyl group which optionally contains functional groups and/or can be olefinically unsaturated,  $R^3$  is hydrogen, OH, a C1 -C12 -alkyl group which optionally contains functional groups and/or can be olefinically unsaturated, and  $R^2$  and  $R^3$  can form a ring structure which can include a heteroatom and/or functional groups and/or can be olefinically unsaturated, and/or b2) a compound which in aqueous medium releases an .alpha.-hydroxy carbonyl compound, and c) catalytic amounts of a polyvalent metal ion which is able to exist in a plurality of valence states.

**DE 38 34 734** discloses a polymerization of olefinic monomers with less residual monomer - using iron salt-containing redox initiator system with addition of corresponding redox system containing vanadium salt. Specifically, the reference discloses a process is claimed for the production. of polymers (I) of unsaturated. olefinic monomers (II) in aqueous medium, using a radical-forming redox initiator system which is soluble in the medium and which consists of an oxidizing agent (III), a reducing agent (IV) and an iron salt; the novelty is that a corresponding redox

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initiator system containing a vanadium salt is used in addition to this Fe-containing system.

Specifically, (III) is an acyl peroxide or a hydroperoxide; (IV) is a sulphinic acid, an alkali sulphinate or ascorbic acid; salts are  $\text{FeSO}_4$  and  $\text{VOSO}_4 \cdot 5\text{H}_2\text{O}$ ; atom ratio Fe:V is (100:1)-(1:100); pH of polymerization medium is 1-12, and the process is carried out as an emulsion polymerization.

The addition of the V salt-containing initiator system increases the rate of polymerization and reduces the residual monomer content in aqueous polymer mixtures or solutions.

The polymer is prepared from olefinically unsaturated monomers in aqueous medium comprises effecting polymerization in the presence of free radical redox system, soluble in aqueous medium, and consisting of oxidizing agent, reducing agent and a synergistic combination of Fe and V salts. Preferably the oxidizing agent is acyl peroxide or hydroperoxide, reducing agent is sulphinic acid, alkali metal salt of sulphinic acid or ascorbic acid, the Fe salt used is  $\text{FeSO}_4$  and the V salt is  $\text{VOSO}_4 \cdot 5\text{H}_2\text{O}$ . The content of olefinically solutions is reduced.

Each of the references discloses a polymer prepared from the same components as claimed by applicants. Any properties or characteristics inherent in the prior art, e.g. pH, although unobserved, unmentioned or detected by the reference, would still anticipate the claimed invention. Note *In re Swinehart*, 169 USPQ 226. "It is elementary that the mere recitation of a newly discovered...property, inherently possessed by things in the prior art, does not cause claim drawn to those things". Since the disclosed amounts, i.e. monomers in percents and of metal ions in ppm, are expressed differently, they nevertheless appear to overlap those claimed and thus are not distinguishable over the prior art. In view of the above, there appears to be no significant difference between the reference(s) and that which is claimed by applicant(s). Any differences not specifically mentioned appear to be conventional. Consequently, the claimed invention cannot be deemed as novel and

accordingly is unpatentable.

**Correspondence**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terressa Boykin whose telephone number is (571) 272-0580. The examiner can normally be reached at (571) 272-0580 on Monday through Friday from 9:30AM to 6:00PM.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**Terressa Boykin**  
**Primary Examiner**  
**Art Unit 1711**